## WHAT IS CLAIMED IS:

1. A compound having a structure according to Formula I:

$$R^2$$
 $N$ 
 $R^5$ 
 $R^6$ 
 $R^6$ 
 $R^6$ 
 $R^6$ 
 $R^6$ 
 $R^6$ 

3 wherein

4 a is either 0 or 1;

5 the dashed line represents a double bond between C\* and N when a is 0;

R<sup>2</sup> is a member selected from (=O) and NR<sup>7</sup>R<sup>8</sup>;

R<sup>4</sup> is a member selected from H, halogen, OR<sup>3</sup>, NR<sup>7</sup>R<sup>8</sup>, halogen, nitrile, and substituted and unsubstituted (C<sub>1</sub>-C<sub>5</sub>)alkyl;

R<sup>6</sup> is a member selected from H, halogen, OR<sup>3</sup>, NR<sup>3</sup>R<sup>3</sup>, substituted or unsubstituted alkyl, substituted or unsubstituted heteroalkyl, substituted or unsubstituted 3-to 7- membered cycloalkyl, substituted or unsubstituted 5- to 7- membered heterocycloalkyl, substituted or unsubstituted acyl, substituted or unsubstituted aryl, and substituted or unsubstituted heteroaryl;

R<sup>7</sup>, R<sup>8</sup>, R<sup>5</sup> and R<sup>1</sup> are members independently selected from H, OR<sup>3</sup>, NR<sup>3</sup>R<sup>3</sup>, substituted or unsubstituted alkyl, substituted or unsubstituted heteroalkyl, substituted or unsubstituted or unsubstituted or unsubstituted 5- to 7- membered heterocycloalkyl, substituted or unsubstituted acyl, substituted or unsubstituted aryl, and substituted or unsubstituted heteroaryl;

R<sup>3</sup> is independently selected from H, substituted or unsubstituted alkyl and substituted or unsubstituted acyl;

wherein R<sup>7</sup> and R<sup>8</sup> together with the nitrogen to which they are joined optionally form a substituted or unsubstituted 5- to 7- membered ring;

wherein R<sup>8</sup> and R<sup>5</sup> together with the atoms to which they are joined optionally form a substituted or unsubstituted 5- to 7- membered ring;

wherein R<sup>5</sup> and R<sup>6</sup> together with the atoms to which they are joined optionally form a substituted or unsubstituted 5- to 7- membered ring; and wherein at least one member selected from R<sup>3</sup>, R<sup>5</sup>, R<sup>7</sup>, and R<sup>8</sup>, alone or together with the atom to which it is covalently bonded, is selected from carbamate and urea linkers.

- 1 2. The compound according to claim 1, wherein R<sup>2</sup> is selected from (=O), 2 -NH<sub>2</sub>, and -NHOH.
- The compound according to claim 1, wherein R<sup>4</sup> is selected from F, CN, -CCH, -CCMe, and CH<sub>3</sub>.
- 1 4. The compound of claim 1, wherein R<sup>1</sup> comprises a hydroxyl moiety.
- The compound of claim 4, wherein R<sup>1</sup> comprises a saccharyl moiety.
- 1 6. The compound of claim 1, wherein R<sup>1</sup> is a structure according to
- 2 Formula II:

$$R^{11}$$
 $C^{a=--}C^{b}$ 
 $R^{10}$ 
 $R^{9}$ 
(II)

4 wherein

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the dashed line represents a double bond between C<sup>a</sup> and C<sup>b</sup>;

R<sup>9</sup>, R<sup>10</sup> and R<sup>11</sup> are members independently selected from H, -OH, -OR<sup>12</sup>, -NH<sub>2</sub>,

-NO<sub>2</sub>, -SO<sub>2</sub>NH<sub>2</sub>, N<sub>3</sub>, halogen, substituted or unsubstituted alkyl, substituted or unsubstituted heteroalkyl, substituted or unsubstituted 3- to 7- membered cycloalkyl, substituted or unsubstituted 5- to 7- membered heterocycloalkyl, substituted or unsubstituted acyl, substituted or unsubstituted aryl, and substituted or unsubstituted heteroaryl;

wherein R<sup>12</sup> is selected from an amino acid and a peptide comprising between

2 and 5 amino acids; wherein R<sup>9</sup> and R<sup>10</sup> together with the atoms to which they are joined optionally form a substituted or unsubstituted 5- to 7- membered ring; wherein R<sup>10</sup> and R<sup>11</sup> together with the atoms to which they are joined optionally form a substituted or unsubstituted 5- to 7- membered ring.

The compound according to claim 6, wherein R<sup>9</sup>, R<sup>10</sup> and R<sup>11</sup> are members independently selected from H, OH, (R<sup>13</sup>)<sub>3</sub>SiO-, and a structure according to Formula III:

wherein each R<sup>13</sup> is independently selected from substituted or unsubstituted alkyl, substituted or unsubstituted 4- to 7-membered cycloalkyl, substituted or unsubstituted 5- to 7-membered heterocycloalkyl, substituted or unsubstituted acyl, substituted or unsubstituted aryl, and substituted or unsubstituted heteroaryl;

wherein more than one R<sup>13</sup> together with the atoms to which they are joined optionally form a substituted or unsubstituted 5- to 7- membered ring; and wherein R<sup>16</sup>, R<sup>17</sup>, and R<sup>18</sup> are independently selected from substituted and unsubstituted alkyl.

- 8. The compound of claim 7, wherein  $R^{16}$ ,  $R^{17}$ , and  $R^{18}$  are ethyl.
- 9. The compound according to claim 1, wherein R<sup>3</sup>, R<sup>5</sup>, R<sup>7</sup>, and R<sup>8</sup> are independently selected from H and a structure according to Formula IV:

$$R^{14}$$
 (IV)

wherein R<sup>14</sup> is selected from substituted or unsubstituted alkyl, substituted or unsubstituted heteroalkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted heterocycloalkyl, substituted or unsubstituted acyl, substituted or unsubstituted aryl, and substituted or unsubstituted heteroaryl, an amino acid, and a peptide comprising between 2 and 5 amino acids;

wherein if R<sup>8</sup> is a structure according to Formula IV, then R<sup>7</sup> is H.

10. The compound according to claim 1, wherein R<sup>3</sup>, R<sup>5</sup>, R<sup>7</sup>, and R<sup>8</sup> are independently selected from H and a structure according to Formula V:

$$R^{15}$$
 (V)

wherein R<sup>15</sup> is selected from substituted or unsubstituted alkyl, substituted or unsubstituted heteroalkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted heterocycloalkyl, substituted or unsubstituted acyl, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, an amino acid, and a peptide comprising between 2 and 5 amino acids;

wherein if R<sup>8</sup> is a structure according to Formula V, then R<sup>7</sup> is H.

1 11. The compound according to claim 9, wherein  $R^{14}$  is selected from 2 substituted or unsubstituted ( $C_4$ - $C_{12}$ )alkyl, benzyl, 2-nitro-furanyl, retinol,  $\alpha$ -tocopherol,

12. The compound according to claim 10, wherein  $R^{15}$  is selected from substituted or unsubstituted (C<sub>4</sub>-C<sub>12</sub>)alkyl, benzyl, 2-nitro-furanyl, retinol,  $\alpha$ -tocopherol,

- 3 calciferol, vitamin K, cholesterol, CH<sub>3</sub>, CCH<sub>3</sub>, CCH<sub>3</sub>, CCH<sub>3</sub>, CCH<sub>3</sub>, and CCH<sub>3</sub>, CCH<sub>3</sub>, and CCH<sub>3</sub>, CCH<sub>3</sub>, and CCH<sub>3</sub>, CCH<sub>3</sub>
- 1 The compound according to claim 11, wherein  $R^{14}$  is unsubstituted 2 ( $C_6$ - $C_{10}$ )alkyl.
- 1 14. The compound according to claim 12, wherein  $R^{15}$  is unsubstituted 2 ( $C_6$ - $C_{10}$ )alkyl.
- 1 15. The compound according to claim 9, wherein R<sup>2</sup> is selected from (=O), 2 -NH<sub>2</sub>, and -NHOH.
- 1 16. The compound according to claim 10, wherein R<sup>2</sup> is selected from 2 (=O), -NH<sub>2</sub>, and -NHOH.
- 1 The compound according to claim 9, wherein R<sup>4</sup> is selected from -F, 2 -CN, -CCH, -CCMe, and -CH<sub>3</sub>.
- 1 18. The compound according to claim 10, wherein R<sup>4</sup> is selected from -F, 2 -CN, -CCH, -CCMe, and -CH<sub>3</sub>.
- 1 19. The compound according to claim 11, wherein
- 2 R<sup>2</sup> is selected from (=O), -NH<sub>2</sub>, and -NHOH; and
- R<sup>4</sup> is selected from -F, -CN, -CCH, -CCMe, and -CH<sub>3</sub>.
- 1 20. The compound according to claim 12, wherein
- 2 R<sup>2</sup> is selected from (=O), -NH<sub>2</sub>, and -NHOH; and
- R<sup>4</sup> is selected from -F, -CN, -CCH, -CCMe, and -CH<sub>3</sub>.

1 21. A method for treating a viral disease comprising administering to a 2 subject in need of such treatment a therapeutically effective amount of a compound according 3 to claim 1. 1 22. The method of claim 21, wherein said compound is given orally. 1 23. The method of claim 22, wherein said compound is an enteric 2 formulation. 1 24. The method of claim 23, wherein said compound is delivered in an 2 osmotic oral delivery device. 1 25. The method of claim 21, wherein the viral disease is caused by a virus 2 selected from a RNA virus and a DNA virus. 1 26. The method of claim 25, wherein said virus is selected from a 2 retrovirus and a ribovirus. 1 27. The method of claim 26, wherein said retrovirus is selected from HIV 2 and Hepatitis B. 1 28. The method of claim 26, wherein said ribovirus is Hepatitis C. 1 29. A method for treating cancer comprising administering to a subject in 2 need of such treatment a therapeutically effective amount of a compound according to claim 1. 1 30. The method of claim 29, wherein said cancer is a hematopoietic 2 cancer. 1 31. A pharmaceutical composition comprising a pharmaceutically 2 acceptable carrier and a compound according to Formula I.